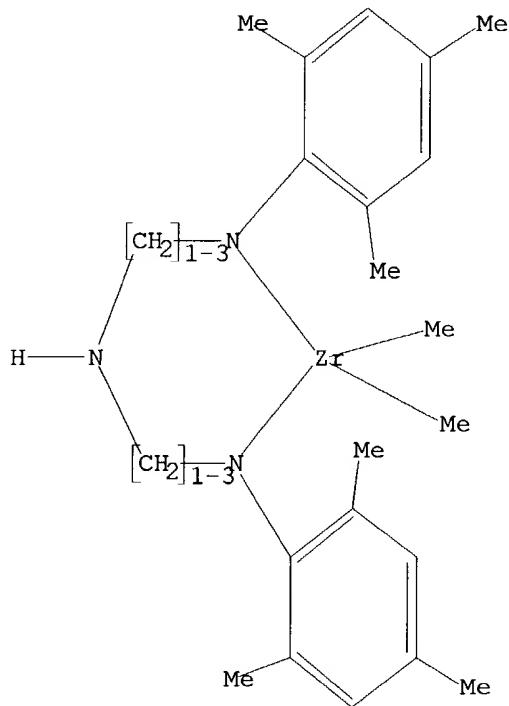


09/864,756

(FILE 'HOME' ENTERED AT 16:54:58 ON 08 JUL 2004)

FILE 'REGISTRY' ENTERED AT 16:56:18 ON 08 JUL 2004
L1 STRUCTURE uploaded

=> d 11
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11
SAMPLE SEARCH INITIATED 16:56:50 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 33 TO 447
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 full
FULL SEARCH INITIATED 16:56:57 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 236 TO ITERATE

100.0% PROCESSED 236 ITERATIONS 4 ANSWERS
SEARCH TIME: 00.00.01

L3 4 SEA SSS FUL L1

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 155.42 | 155.84 |

FILE 'CAPLUS' ENTERED AT 16:57:03 ON 08 JUL 2004
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Jul 2004 VOL 141 ISS 2
 FILE LAST UPDATED: 7 Jul 2004 (20040707/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 13
L4      3 L3

=> d 1-3 bib abs
```

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:824311 CAPLUS
DN 134:5262
TI Catalysts and method for polymerization of olefins
IN McConville, David H.; Schrock, Richard R.
PA Univation Technologies, LLC, USA; Massachusetts Institute of Technology
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|---------------------------|----------|
| PI | WO 2000069922 | A2 | 20001123 | WO 2000-US13312 | 20000515 |
| | WO 2000069922 | A3 | 20010208 | | |
| | W: AU, BR, BY, CA, CN, CZ, ID, IL, IN, JP, KR, MX, NO, PL, RU, SG, SK, TR, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 6271325 | B1 | 20010807 | US 1999-312878 | 19990517 |
| | EP 1185563 | A2 | 20020313 | EP 2000-932437 | 20000515 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | TR 200103289 | T2 | 20020321 | TR 2001-20010328920000515 | |
| | BR 2000010534 | A | 20020416 | BR 2000-10534 | 20000515 |
| | JP 2002544339 | T2 | 20021224 | JP 2000-618337 | 20000515 |
| | AU 756239 | B2 | 20030109 | AU 2000-50159 | 20000515 |
| | TW 526207 | B | 20030401 | TW 2000-89109277 | 20000515 |

| | | | | |
|---------------------|---|----------|----------------|----------|
| EG 23015 | A | 20031231 | EG 2000-624 | 20000515 |
| US 2001041778 | A1 | 20011115 | US 2001-864756 | 20010524 |
| ZA 2001009439 | A | 20030217 | ZA 2001-9439 | 20011115 |
| NO 2001005613 | A | 20011116 | NO 2001-5613 | 20011116 |
| PRAI US 1999-312878 | A | 19990517 | | |
| WO 2000-US13312 | W | 20000515 | | |
| OS MARPAT 134:5262 | | | | |
| AB | This invention relates to a composition of matter represented by formula (I), and to a polymerization process comprising combining an olefin in the gas or slurry phase with an activator, a support and a compound represented by formula (I): wherein M is a group 3 to 14 metal, each X is independently an anionic leaving group, n is the oxidation state of M, m is the formal charge of the YZL ligand, Y is a group 15 element, Z is a group 15 element, L is a group 15 or 16 element, R1 and R2 are independently a C1 to C20 hydrocarbon group, a heteroatom containing group, silicon, germanium, tin, lead, phosphorus, a halogen, R1 and R2 may also be interconnected to each other, R3 is absent, or is hydrogen, a group 14 atom containing group, a halogen, a heteroatom containing group, R4 and R5 are independently an aryl group, a substituted aryl group, a cyclic alkyl group, a substituted cyclic alkyl group, or multiple ring system, R6 and R7 are independently absent or hydrogen, halogen, a heteroatom or a hydrocarbyl group, or heteroatom containing group. Ethylene and hexene were copolymerd. using a catalyst system containing $[(iPrN(o-C_6H_4)]_2O]ZrCl_2 \cdot C_7H_8$ and Me aluminoxane. | | | |
| L4 | ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN | | | |
| AN | 2000:790856 CAPLUS | | | |
| DN | 134:100963 | | | |
| TI | Preparation and Activation of Complexes of the Type $[(\text{mesityl})NCH_2CH_2)_2NX]ZrMe_2$ (X = H, Me) with $[Ph_3C][B(C_6F_5)_4]$ or $[PhNMe_2H][B(C_6F_5)_4]$ | | | |
| AU | Schrock, Richard R.; Casado, Arturo L.; Goodman, Jonathan T.; Liang, Lan-Chang; Bonitatebus, Peter J., Jr.; Davis, William M. | | | |
| CS | Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA | | | |
| SO | Organometallics (2000), 19(25), 5325-5341 CODEN: ORGND7; ISSN: 0276-7333 | | | |
| PB | American Chemical Society | | | |
| DT | Journal | | | |
| LA | English | | | |
| OS | CASREACT 134:100963 | | | |
| AB | <p>The zirconium di-Me complexes $[N_2NX]ZrMe_2$ ($N_2NX = [(\text{Mes})NCH_2CH_2)_2NX]$; Mes = mesityl; X = H (1a), Me (1b)), have "mer" structures in the solid state in which the amido nitrogens occupy "axial" positions in a trigonal bipyramidal. The reaction of 1b with 1 equivalent of $[Ph_3C][B(C_6F_5)_4]$ followed by addition of di-Et ether yielded the ether adduct $\{[N_2NMe]ZrMe(Et_2O)\}^+$ (with $[B(C_6F_5)_4]$- as the anion), an x-ray study of which revealed it to be a fac trigonal-bipyramidal species in which the di-Et ether is coordinated in an apical position. The reaction of 1b with 1 equivalent of $[PhNMe_2H][B(C_6F_5)_4]$ led to $\{[N_2NMe]ZrMe(NMe_2Ph)\}[B(C_6F_5)_4]$, solution NMR studies of which suggest a structure analogous to that of $\{[N_2NMe]ZrMe(Et_2O)\}^+$. Heating solns. of $\{[N_2NMe]ZrMe(NMe_2Ph)\}[B(C_6F_5)_4]$ led to C-H activation in one mesityl o-Me group and formation of methane. The reaction of 1b with 0.5 equiv of $[Ph_3C][B(C_6F_5)_4]$ yielded $\{[[N_2NMe]ZrMe]_2(\mu-\text{Me})\}[B(C_6F_5)_4]$ (5b), an x-ray diffraction study of which revealed an almost linear (167.4°) Me bridge linking two distorted TBP moieties through the apical positions (average $Zr-C(\text{bridge}) = 2.48 \text{ \AA}$, average $Zr-C(\text{terminal}) = 2.24 \text{ \AA}$). The equatorial Me groups in 5b exchange readily between Zr centers, while the bridging Me group and the equatorial Me groups exchange relatively slowly on the NMR time scale, but still rapidly on the chemical time scale. Exchange of free $[N_2NMe]ZrMe_2$ with the $[N_2NMe]ZrMe_2$ fragment in 5b is also facile on the chemical time</p> | | | |

scale. The reaction of 1b with 1.0 equiv or more of [Ph₃C][B(C₆F₅)₄] led to formation of a cationic species (6b), two forms of which could be observed at low temperature Activation of 1a with [Ph₃C][B(C₆F₅)₄] yielded only one cationic form of 6a at low temps. Exchange of Me groups between 6a and 6b is slow on the chemical time scale. All evidence is consistent with the observation of different ion pairs of 6b at low temps.

RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:346522 CAPLUS
DN 131:144898
TI Synthesis of Group 4 Complexes that Contain the Diamidoamine Ligands, [(2,4,6-Me₃C₆H₂NCH₂CH₂)₂NR]₂- ([Mes₂N₂NR]₂-; R = H or CH₃), and Polymerization of 1-Hexene by Activated [Mes₂N₂NR]ZrMe₂ Complexes
AU Liang, Lan-Chang; Schrock, Richard R.; Davis, William M.; McConville, David H.
CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SO Journal of the American Chemical Society (1999), 121(24), 5797-5798
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB Zr complexes that contain the [(2,4,6-Me₃C₆H₂NCH₂CH₂)₂NR]₂- ([Mes₂N₂NR]₂-; R = H or Me) ligand, along with [Mes₂N₂NH]TiMe₂ and [Mes₂N₂NH]HfMe₂ complexes were prepared. The activation of the Zr di-Me complexes by [Ph₃C][B(C₆F₅)₄] for the polymerization of 1-hexene at temps. up to 30° is also reported. The crystal and mol. structures of [Mes₂N₂NMe]ZrMe₂ were determined by x-ray crystallog.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>